

## Measurement System for Aerosol, Methane and Carbon Dioxide Concentrations and Fluxes at Tiksi Observatory in Northeast Siberia

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Tiksi meteorological observatory, on the coast of the Laptev Sea, has been operating since the 1930s. As part of the International Polar Year project "The International Arctic Systems for Observing the Atmosphere", Russian, U.S. and Finnish participants have been upgrading the observatory. The project is run in collaboration with partners from the United States in NOAA with the support of the National Science Foundation, Russian Roshydromet (Arctic & Antarctic Research Institute and Main Geophysical Observatory units, Yakutian hydromet), the government of the Republic of Sakha (Yakutia) and the Finnish Meteorological Institute (FMI). FMI has contributed to the observations of aerosol size distribution, methane and carbon dioxide concentrations and micrometeorological flux observations of carbon dioxide and methane fluxes above the tundra landscape. The installations were successfully implemented in autumn 2009 by delivering the instrumentation to Tiksi observatory and performing preliminary tests. First data are expected in the summer of 2010. The poster will present the measurement system.



**Figure 1.** Micrometeorological eddy-covariance fluxes of carbon dioxide and methane are measured on the close-by tundra. Atmospheric concentrations of trace gases and aerosols are measured at the Clean Air Facility on an elevated location behind.